```
DP[x_→D[α_], y_→D[β_]][P_][f_] := (* means P[∂α, ∂β][f] *)
  Total[CoefficientRules[P, {x, y}] /.
    ({m_, n_} → c_) :⇒ c D[f, {α, m}, {β, n}]];
CF[𝔼[ω_, L_, Q_, P_]] := Expand /@ Together /@
    𝔼[ω /. b :⇒ Log[t], L, Q /. b :⇒ Log[t],
     P /. b :⇒ Log[t]];
𝔼 /: 𝔼[ω1_, L1_, Q1_, P1_] 𝔼[ω2_, L2_, Q2_, P2_] :=
  CF@𝔼[ω1 ω2, L1 + L2, ω2 Q1 + ω1 Q2, ω2^4 P1 + ω1^4 P2];
N[u_i_ c_j_→k_][𝔼[ω_, L_, Q_, P_]] :=
  With[{q = ℯ^-γ β u_k + γ c_k}, CF[
    𝔼[ω, γ c_k + (L /. c_j → 0), ω ℯ^-γ β u_k + (Q /. u_i → 0),
      ℯ^-q DP[c_j→D[γ], u_i→D[β]][P][ℯ^q]] /.
     {γ → ∂_c_j L, β → ω^-1 ∂_u_i Q}]];
N[w_i_ c_j_→k_][𝔼[ω_, L_, Q_, P_]] :=
  With[{q = ℯ^γ α w_k + γ c_k}, CF[
    𝔼[ω, γ c_k + (L /. c_j → 0), ω ℯ^γ α w_k + (Q /. w_i → 0),
      ℯ^-q DP[c_j→D[γ], w_i→D[α]][P][ℯ^q]] /.
     {γ → ∂_c_j L, α → ω^-1 ∂_w_i Q}]];

N[w_i_ u_j_→k_][𝔼[ω_, L_, Q_, P_]] :=
  With[{q = (1 - t) μ^-1 α β + μ^-1 β u_k + μ^-1 δ u_k w_k + μ^-1 α w_k},
   CF[
    𝔼[μ ω, L, μ ω q + μ (Q /. w_i | u_j → 0),
      μ^4 ℯ^-q DP[w_i→D[α], u_j→D[β]][P][ℯ^q] + ω^4 Λ[k]] /.
     μ → 1 + (t - 1) δ /.
     {α → ω^-1 (∂_w_i Q /. u_j → 0), β → ω^-1 (∂_u_j Q /. w_i → 0),
      δ → ω^-1 ∂_w_i,u_j Q}]];
m[i_,j_→k_][Z_] := Module[{x, y, z},
  Z // N[w_i c_j→x] // N[w_x u_j→y] //
    ReplaceAll[{c_x|y → c_x, w_j → w_y}] // N[u_i c_x→x] //
   ReplaceAll[z_i|j|x|y → z_k] // CF]
```